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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR             | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------------------|---------------------|------------------|
| 09/682,365      | 08/24/2001  | Radislav Alexandrovich Potyrailo | RD-28149            | 9524             |

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EXAMINER

DAVIS, WILLIE L

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/682,365 | <b>Applicant(s)</b><br>POTYRAILO ET AL. |  |
|                              | <b>Examiner</b><br>Willie Davis      | <b>Art Unit</b><br>2877                 |  |
|                              |                                      |   |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 08-24-2 001.

2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-56 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-56 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All   b) ☐ Some \*   c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____<br>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)<br>6) <input type="checkbox"/> Other: _____ |
|--|---|

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7,9-25,27-50 and 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al in view of Thomas et al.

As to independent claims 1 and 27 and dependent claims 9,10,36 and 37, Buchanan discloses everything(see patent 5657404, column 1,lines 10-14 and claim 16) with the exception of a data analysis system. Thomas discloses a data analysis system(see 5857462, column 27,lines 39-53)used in spectral analysis. It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate an improved data system in spectral analysis in order to obtain better recordings of wavelengths of light from chemical samples.

As to dependent claims 2 and 28, Buchanan discloses that the technique used(which includes probe temperature) to determine the chemical composition depends on the desired information(see column 1, lines 10-15). A probe can be(1)kept at a constant temperature or (2)varied in temperature.

As to dependent claims 3 and 29, Buchanan discloses a high temperature probe(see column 2, lines 20-40).

As to dependent claims 4 and 30, Buchanan discloses a probe immersed in a polymer sample(see column 6, lines 61-65).

As to dependent claims 5-7 and 31-33, Buchanan discloses probes withstanding temperature as high as 500 degrees C(see column 4, lines 42-58).

As to dependent claims 11-17,22,34,35,38-41,46 and 50, Buchanan discloses that various spectroscopic techniques are routinely used to determine the constitution of chemical compositions and to monitor the processes(see column 1, lines 10-13). Chemical compositions consist of all chemical samples including polymers, oligomers, molten and melt polycarbonate, bisphenol A, diphenyl carbonate, uncapped phelolic end-groups, linear Fries products and branched Fries products.

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As to dependent claims 18-21, 23-25, 42-45 and 47-49, Buchanan discloses that the choice of technique, including the wavelength of the radiation employed, depends on the information desired(see column 1, lines 12-15). The wavelengths ranging from 250 nm to 400 nm are choices selected for desired information.

As to independent claims 54-56, Buchanan points out that various spectroscopic techniques are routinely used to determine the constitution of chemical compositions and to monitor the progress of chemical reactions and processes. The choice of technique, including the wavelength of the radiation employed, depends on the information desired(see column 1, lines 10-15). Monitoring molten polycarbonate composition and comparing the light to levels of linear Fries products, branched Fries products and phenolic end-groups is a routine technique to determine chemical composition of particular samples.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 26 and 51-53 are rejected under 35 U.S.C. 112, second paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claim 8, the specification explains a filter positioned between the sample and the spectrometer, but the claim recites a filter positioned between the light source and the spectrometer.

As to claims 26 and 53, claims recite "computer readable media comprising software code", however, the specification does not disclose any detail or description of software code.

As to claim 51, claim recites "irradiation and monitoring of light absorbed is performed on combinatorial libraries of sample", however, the specification does not disclose any detail or description of "combinatorial libraries of samples".

As to claim 52, claim recites "applying a predetermined selection test to determine whether any one of a set of preselected reaction components needs to be adjusted", however, the specification does not disclose any detail or description or "applying a predetermined selection test".

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie Davis whose telephone number is 703-305-5169. The examiner can normally be reached on 9:30am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 703-308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-0956 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-7722.

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March 4, 2003

*Willie Davis*

*Frank G. Font*  
Frank G. Font  
Supervisory Patent Examiner  
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